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(72) Inventors:

- **Tsirigotis, Panagiotis**
Mountain View, CA 94040 (US)
- **Radia, Sanjay**
Fremont, CA 94539 (US)

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(74) Representative: **Harris, Ian Richard**
D. Young & Co.,
21 New Fetter Lane
London EC4A 1DA (GB)

(71) Applicant: **SUN MICROSYSTEMS, INC.**
Palo Alto, California 94303 (US)

(54) **Dynamic cache preloading across loosely-coupled administrative domains**

(57) A caching server that provides faster access times for independently operating network elements. The caching server initiates information transfer and holds the requested information in its memory, instead of caching information transfer in response to user requests. The caching server preloads information from another server into its memory based on a set of predetermined criteria. Such preloading preferably occurs during low usage time, such as nighttime. The information source determines which information is described in the catalog in accordance with one of a second set of predetermined criteria. For example, the catalog may be organized according to size and the information source will organize the catalog by file size. The caching server preloads as many often-used files as will fit in its cache memory.

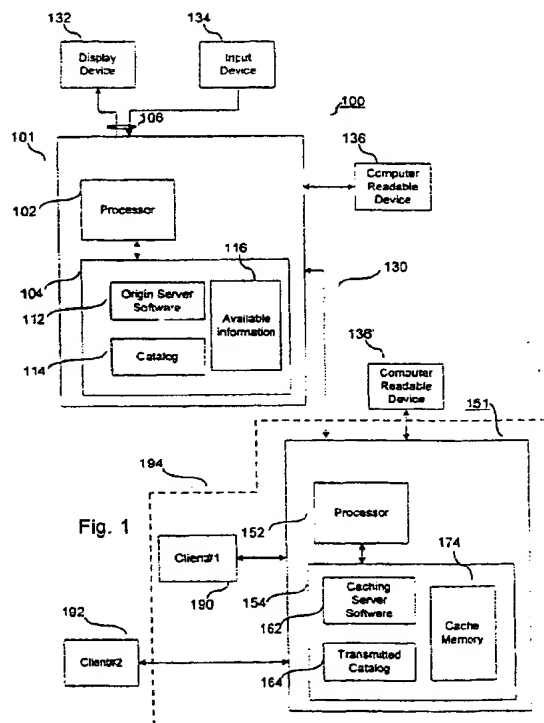


Fig. 1



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EUROPEAN SEARCH REPORT

Application Number
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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	BESTAVROS A: "SPECULATIVE DATA DISSEMINATION AND SERVICE" DATA ENGINEERING, 1996, pages 180-187, XP000764867 * page 180, left-hand column, line 1 - page 181, left-hand column, line 1 * * page 186, right-hand column, line 33 - page 187, left-hand column, paragraph 4 *	1-7, 9-11, 14-16	G06F17/30 G06F12/08 H04L29/06
A	WANG Z ET AL: "PREFETCHING IN WORLD WIDE WEB" COMMUNICATIONS: THE KEY TO GLOBAL PROSPERITY. GLOBECOM 1996 GLOBAL INTERNET 96 CONFERENCE RECORD, LONDON, NOV. 18 - 22, 1996, vol. SUPP, 18 November 1996, pages 28-32, XP000741668 INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS * page 29, left-hand column, paragraph 4 - right-hand column, paragraph 4.1 * * page 30, left-hand column, line 44 - page 31, left-hand column, paragraph 6 *	1-7, 9-11, 14-16	TECHNICAL FIELDS SEARCHED (Int.Cl.6) G06F
A	SCHILIT B N ET AL: "TeleWeb: Loosely connected access to the World Wide Web" COMPUTER NETWORKS AND ISDN SYSTEMS, vol. 28, no. 11, May 1996, page 1431-1444 XP004018240 * page 1433, right-hand column, paragraph 2.1 - page 1434, left-hand column, paragraph 2.2 * * page 1437, left-hand column, paragraph 4.1 - page 1438, right-hand column, paragraph 4.2; figure 1 *	1,12-14, 16	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 22 February 1999	Examiner Fournier, C
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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Application Number
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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	<p>GWERTZMAN J S ET AL: "The case for geographical push-caching" PROCEEDINGS FIFTH WORKSHOP ON HOT TOPICS IN OPERATING SYSTEMS (HOTOS-V) (CAT. NO.95TH8059), PROCEEDINGS 5TH WORKSHOP ON HOT TOPICS IN OPERATING SYSTEMS (HOTOS-V), ORCAS ISLAND, WA, USA, 4-5 MAY 1995, pages 51-55, XP002094210 ISBN 0-8186-7081-9, 1995, Los Alamitos, CA, USA, IEEE Comput. Soc. Press, USA</p> <p>* the whole document *</p> <p>-----</p>	1,14,16	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
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Place of search THE HAGUE		Date of completion of the search 22 February 1999	Examiner Fournier, C
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

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